

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 -41. (Cancelled)

42. (Currently Amended) A method for data transmission between a circuit switched network, via an interface means that includes a media gateway, and a packet switched network, the method comprising:

coupling the circuit switched network to the packet switched network with the interface means, the interface means further comprising

a first network layer for transporting only signaling information assigned to a call and

a second network layer for transporting only payload information assigned to a call, wherein the two network layers in the circuit switched network are used for carrying the data transmission, via the interface means, between the circuit switched network and the packet switched network;

processing the signaling information associated with the data transmission in the circuit switched network on [[a]] the first network layer of the two network layers, wherein the first network layer includes a mobile service switching center;

transferring the payload information associated with the data transmission on [[a]] the second network layer of the two network layers in the circuit switched network utilizing a protocol stack, the protocol stack comprising:

a first protocol stack in a mobile station, the first protocol stack coupled to a second protocol stack in a radio network means, the second protocol stack being coupled to

a third protocol stack in the media gateway; and

information frame generating means for generating an information frame containing payload information associated with the data transmission; and

responsive to detecting a received, empty information frame ~~lacking payload information~~, a first discontinuous transmission (DTX) means in the second protocol stack discarding the received information frame to improve the data rate, wherein remaining information frames are forwarded to the packet switched network via a direct connection between the radio network means and the media gateway.

43. (Currently Amended) The method of claim 42, wherein the circuit switched network is a cellular telephone network, the radio network means is a Base Transceiver Station (BTS), the packet switched network is the Internet, and the second layer of the two network layers further comprises

a number of base stations, each base station connected directly to the interface means for payload exchanges in the second layer and

information frame generating means for generating an information frame with a receive sequence number.

44. (Previously Presented) The method of claim 42, wherein the circuit switched network is a GSM cellular telephone network.

45. (Previously Presented) The method of claim 43, further comprising the step of adapting a transfer rate of the payload information within the BTS.

46. (Previously Presented) The method of claim 42, further comprising the step of disabling a second DTX means in the third protocol stack.

47. (Previously Presented) The method of claim 43, further comprising generating information frames containing payload information in the first protocol stack.

48. (Previously Presented) The method of claim 47, further comprising the step of monitoring the generated information frames for determining whether the generated information frames contain payload information.

49. (Previously Presented) The method of claim 48, wherein the step of monitoring the generated information frames further comprises the step of detecting an "S" frame, which carries supervisory information, and if the "S" frame receive sequence number is equal to that of a previous frame, discarding the "S" frame.

50. (Previously Presented) The method of claim 48, further comprising the step of monitoring the generated information frames in the second protocol stack.

51. (Currently Amended) A method for data transmission from a packet switched network, via an interface means that includes a media gateway, to a circuit switched network, the method comprising:

coupling the packet switched network to the circuit switched network with the interface means, wherein two network layers in the circuit switched network are used for carrying the data transmission via the interface means between the packet switched network and the circuit switched network, the network layers including

a first layer for transporting only payload information assigned to a call and
a second layer for transporting only signaling information assigned to the call;

receiving the data transmission from the packet switched network in the media gateway;

processing signaling information associated with the data transmission in the circuit switched network on [[a]] the first network layer of the two network layers;

transferring payload information associated with the data transmission in the circuit switched network on [[a]] the second layer of the two network layers, wherein the second layer comprises a number of base stations directly connected to the interface means and utilizing a protocol stack, the protocol stack comprising:

 a first protocol stack in the media gateway, the first protocol stack coupled to

 a second protocol stack in a radio network means, the second protocol stack coupled to

a third protocol stack in a mobile station; and
information frame generating means for generating an information frame containing the payload information of the data transmission; and
responsive to detecting a received, empty information frame ~~lacking payload information~~, a discontinuous transmission (DTX) means in the first protocol stack discarding the received empty information frame to improve the data rate, wherein remaining information frames are forwarded to the mobile station via [[a]] the direct connection between the media gateway and the radio network means.

52. (Previously Presented) The method of claim 51, wherein the circuit switched network is a cellular telephone network, the radio network means is a Base Transceiver Station (BTS), the packet switched network is the Internet, and the second layer of the two network layers further comprises information frame generating means for generating an information frame with a receive sequence number.

53. (Previously Presented) The method of claim 51, wherein the circuit switched network is a GSM cellular telephone network.

54. (Previously Presented) The method of claim 52, further comprising the step of adapting a transfer rate of the payload information within the BTS.

55. (Previously Presented) The method of claim 51, further comprising the step of disabling a second DTX means in the second protocol stack.

56. (Previously Presented) The method of claim 52, further comprising the step of generating information frames, containing payload information, in the first protocol stack.

57. (Previously Presented) The method of claim 56, further comprising the step of monitoring the generated information frames for determining whether the generated information frames contain payload information.

58. (Previously Presented) The method of claim 57, further comprising the step of monitoring the generated information frames in the first protocol stack.

59. (Previously Presented) The method of claim 57, wherein the step of monitoring the generated information frames further comprises the step of detecting an "S" frame, which carries supervisory information, and if the "S" frame receive sequence number is equal to that of a previous frame, discarding the "S" frame.

60. (Currently Amended) A communication network element for data transmission from a circuit switched network via an interface means that includes a media gateway to a packet switched network, the network element comprising:

a first network layer, including a mobile service switching center, in the circuit switched network connected to the interface means for transporting and processing only signaling information associated with the data transmission;

a second network layer in the circuit switched network connected to the interface means for transferring only payload information associated with the data transmission, the second network layer utilizing a protocol stack, the protocol stack comprising:

a first protocol stack in a mobile station, the first protocol stack coupled to a second protocol stack in a radio network means, the second protocol stack being coupled to

a third protocol stack in the media gateway;

means for generating information frames containing the payload information received from the circuit switched network; and

a first discontinuous transmission (DTX) means in the second protocol stack for discarding an empty information frame ~~lacking payload information~~ to improve the data rate, wherein remaining information frames are forwarded on to the packet switched

network via a direct connection between the media gateway and the radio network means wherein the radio network means comprises a number of base stations .

61. (Previously Presented) The communication network element of claim 60, further comprising means in the second protocol stack for monitoring the generated information frames.

62. (Previously Presented) The communication network element of claim 60, wherein the circuit switched network is a cellular telephone network, the radio network means is a Base Transceiver Station (BTS), the packet switched network is the Internet, and the information frame generating further comprises means for generating an information frame with a receive sequence number.

63. (Previously Presented) The communication network element of claim 60, wherein the circuit switched network is a GSM cellular telephone network.

64. (Previously Presented) The communication network element of claim 62, further comprising means for adapting a transfer rate of the payload information within the BTS.

65. (Previously Presented) The communication network element of claim 60, further comprising means for disabling a second DTX means in the third protocol stack.

66. (Previously Presented) The communication network element of claim 60, further comprising means in the first protocol stack for generating information frames containing payload information.

67. (Previously Presented) The communication network element of claim 66, further comprising means for monitoring the generated information frames for determining whether the generated information frames contain payload information.

68. (Previously Presented) The communication network element of claim 67, further comprising means for monitoring the generated information frames in the second protocol stack.

69. (Previously Presented) The communication network element of claim 67, wherein the means for monitoring the generated information frame further comprises means for discarding a detected "S" frame, which carries supervisory information, if the detected "S" frame receive sequence number is equal to that of a previous frame.

70. (Currently Amended) A communication network element for data transmission from a packet switched network via an interface means that includes a media gateway to a circuit switched network, the communication network element comprising:

a first network layer₁ in the circuit switched network₁ connected to the interface means for transporting and processing only signaling information associated with the data transmission;

a second network layer₁ in the circuit switched network₁ connected to the interface means[[.]] ~~the second network layer and~~ utilizing a protocol stack for transferring only payload information associated with the data transmission, the protocol stack comprising:

 a first protocol stack in the media gateway, the first protocol stack being coupled to

 a second protocol stack in a radio network means, the second protocol stack being coupled to

 a third protocol stack in a mobile station and

information frame generating means for generating an information frame containing the payload information associated with the data transmission; and a discontinuous transmission (DTX) means in the first protocol stack for discarding a received, empty information frame ~~lacking payload information~~ to improve data transfer rate, wherein remaining information frames are forwarded to the mobile station via a direct connection between the media gateway and the radio network means wherein the radio network means comprises a number of base stations.

71. (Previously Presented) The communication network element of claim 70, wherein the circuit switched network is a cellular telephone network, the radio network means is a Base Transceiver Station (BTS), the packet switched network is the Internet and the information frame generating means further comprises means for generating an information frame with a receive sequence number.

72. (Previously Presented) The communication network element of claim 70, wherein the circuit switched network is a GSM cellular telephone network.

73. (Previously Presented) The communication network element of claim 71, further comprising means for adapting a transfer rate of the data transmission within the BTS.

74. (Previously Presented) The communication network element of claim 70, further comprising means for disabling a second DTX means in the second protocol stack.

75. (Previously Presented) The communication network element of claim 70, further comprising means in the first protocol stack for generating information frames containing the payload information.

76. (Previously Presented) The communication network element of claim 75, further comprising means for monitoring the generated information frames for determining whether the generated information frames contain the payload information.

77. (Previously Presented) The communication network element of claim 76, wherein the means for monitoring the generated information frame further comprises means for discarding a detected "S" frame, which carries supervisory information, if the detected "S" frame receive sequence number is equal to that of a previous frame.